

REMARKS / ARGUMENTS

I. General Remarks

Please consider the application in view of the following remarks. Applicants thank the Examiner for his careful consideration of this application.

II. Disposition of Claims

Claims 1-60 are pending in this application. Claims 61-80 were cancelled in Applicants' previous response.

Claims 1, 21, and 41 have been amended herein. These amendments are supported by the specification as filed.

Claims 1, 2, 4, 14, 15, 21, 22, 24, 34, 41, 42, 54, and 55 stand rejected under 35 U.S.C. § 102(b). Claims 3, 5-13, 16-20, 23, 25-33, 35-40, 43-53, and 56-60 stand rejected under 35 U.S.C. § 103(a).

III. Remarks Regarding Rejections of Claims

A. Rejections of Claims Under 35 U.S.C. § 102(b)

Claims 1, 2, 4, 14, 15, 21, 22, 24, 34, 41, 42, 54, and 55 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,209,643 to Nguyen, *et al.* ("*Nguyen*"). Applicants respectfully traverse.

In order to form a basis for a rejection under 35 U.S.C. § 102(b), a prior art reference must disclose each and every element as set forth in the claim. MANUAL OF PATENT EXAMINING PROCEDURE § 2131 (2004). *Nguyen does not disclose each and every element as set forth in the rejected claims* because *Nguyen* does not disclose a particulate having a surface that comprises a porous or partially hollow geometry, and a coating that is capable of trapping a fluid between the particulate's surface and the coating, which reduces the density of the particulate.

In the Final Office Action, the Examiner reiterates his grounds for rejection of the claims:

[*Nguyen*] teaches a coated particulate that may also comprise an "additional material," which is referred to as a substrate material. This additional substrate material may comprise glass, ceramic, carbon composites, natural or synthetic polymers or metal and the like in the form of fibers, flakes, ribbons, beads, shavings, platelets and the like. (See [*Nguyen*] at col. 4, ll. 21-28.) This "additional material" is particulates. The reference lists examples of particulate material as sand, ceramics, glass, sintered bauxite, resin coated sand, resin beads, metal beads and the like. (See [*Nguyen*])

at col. 4, ll. 16-21.) The substrate material is also particulate material based on these examples. The reference goes on to disclose that the substrate material may be porous and coated. (See [*Nguyen*] at col. 4, ll. 31-36.)

[*Nguyen*] does not expressly teach that a fluid is trapped in a coated particulate. However, it does teach a coated particulate, thus it is inherently capable of trapping a fluid.

(Final Office Action at ¶ 10.) Applicants disagree with this in all respects.

First, Applicants have amended claims 1, 21, and 41 herein to recite the step of allowing a fluid to be trapped between the surface of particulate and the coating so that the density of the particulate is reduced. As noted by the Examiner in the Final Office Action, *Nguyen* does not expressly teach this step.

Further, *Nguyen* does not inherently disclose a particulate with a coating that is capable of trapping a fluid onto the particulate to reduce its density. “The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic.” See MANUAL OF PATENT EXAMINING PROCEDURE § 2112 (emphasis in original). Rather, for *Nguyen* to inherently disclose this feature, “the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” *Id.* (emphasis in original). The Examiner has not met this burden, nor can he, as Applicants demonstrate below.

Nguyen fails to teach or disclose any particulates that necessarily are capable of trapping a fluid. Specifically, *Nguyen* does not disclose a particulate having a surface that comprises a porous or partially hollow geometry. Although *Nguyen* does disclose that the “additional” or “substrate” material may be a porous material, it does not describe what is meant by “porous” in this context, nor does it describe the geometry of the surface of the particulate. Thus, even if a coated particulate with a surface that comprises a porous or hollow geometry would necessarily be capable of trapping a fluid, the coated particulates disclosed in *Nguyen* would not necessarily be capable of doing so since *Nguyen* does not disclose particulates having a surface with this geometry. Therefore, *Nguyen*’s disclosure of particulate that may comprise a porous substrate material does not teach or disclose a coated particulate that is necessarily capable of trapping a fluid.

In fact, the particulates disclosed in *Nguyen* have characteristics that would be incompatible with trapping a fluid such that the density of the particulate is reduced. The purpose of the invention disclosed in *Nguyen* is to “uniformly deliver[] a controlled release of a treatment chemical” to a subterranean formation. (See *Nguyen* at col. 3, ll. 31-33.) To that end, *Nguyen* teaches that a treatment chemical may be absorbed or coated onto the particulates disclosed therein, whereby “the treatment chemical is slowly released” into a fluid carrying the particulates as the tackifying coating thereon is dissolved. (See *Nguyen* at col. 4, ll. 31-34 & 47-51.) Therefore, the coated particulates in *Nguyen* must be configured so as to allow the treatment chemical to be released into a fluid. In contrast, in order to reduce the density of the particulate, the coating and surface of the particulates in Applicants’ claims must be configured so as to trap a fluid and prevent its release. Allowing the coating to dissolve and release a treatment chemical as taught in *Nguyen* would actually work against the result of reducing the density of the particulates since, once the coating is dissolved, a fluid could no longer be trapped between the coating and the surface. Therefore, the coating and surface of the particulates disclosed in *Nguyen*, which are configured to release treatment chemicals, necessarily does not trap a fluid such that the density of the particulate is reduced.

Thus, *Nguyen* does not inherently teach or suggest a particulate having a surface that comprises a porous or partially hollow geometry and a coating that is capable of trapping a fluid between the particulate’s surface and the coating such that the density of the particulate is reduced. Applicants therefore respectfully assert that the *Nguyen* does not disclose each element of the methods recited in claims 1, 21, and 41. Thus, those methods are patentable over *Nguyen*. Moreover, since “a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers,” and since claims 2, 4, 14, 15, 22, 24, 34, 42, 54, and 55 depend, either directly or indirectly, from claims 1, 21, or 41, these dependent claims are allowable for at least the same reasons. See 35 U.S.C. § 112 ¶ 4 (2004). Accordingly, Applicants respectfully request the withdrawal of these rejections.

B. Rejections of Claims Under 35 U.S.C. § 103(a)

1. Rejections of Claims Under 35 U.S.C. § 103(a) Over *Nguyen* in View of U.S. Patent No. 4,665,988

Claims 3, 5-7, 12, 13, 23, 25-27, 32, 33, 35, 43-47, 52, and 53 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nguyen* in view of U.S. Patent No. 4,665,988 to Murphey, *et al.* (“*Murphey*”). Applicants respectfully traverse.

In order for a combination of references to form the basis for a rejection under §103(a), the combination of references must teach or suggest all of the elements of the claim. MANUAL OF PATENT EXAMINING PROCEDURE § 2143 (2004). However, as discussed in Section III.A. above, *Nguyen* does not teach or suggest the use of a particulate having a surface that comprises a porous or partially hollow geometry and a coating that is capable of trapping a fluid between the particulate's surface and the coating such that the density of the particulate is reduced, as recited in claims 1, 21 and 41, as amended herein. Nor has the Examiner asserted that *Murphey* teaches or suggests these elements. Claims 3, 5-7, 12, 13, 23, 25-27, 32, 33, 35, 43-47, 52, and 53 also include each of these limitations since they each depend, either directly or indirectly, from claims 1, 21 or 41, and "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." See 35 U.S.C. § 112 ¶ 4 (2004). Therefore, since the combination of *Nguyen* and *Murphey* does not teach these elements, claims 3, 5-7, 12, 13, 23, 25-27, 32, 33, 35, 43-47, 52, and 53 are patentable over *Nguyen* in view of *Murphey*. Accordingly, Applicants respectfully request the withdrawal of these rejections.

2. Rejection of Claims Under 35 U.S.C. § 103(a) Over *Nguyen* in View of U.S. Patent No. 6,079,492

Claims 8, 10, 48, and 50 stand rejected under 35 U.S.C. § 103(a) as being as being unpatentable over *Nguyen* in view of U.S. Patent No. 6,079,492 to Hoogteijling, *et al.* ("*Hoogteijling*"). Applicants respectfully traverse.

In order for a combination of references to form the basis for a rejection under § 103(a), the combination of references must teach or suggest all of the elements of the claim. MANUAL OF PATENT EXAMINING PROCEDURE § 2143 (2004). However, as discussed in Section III.A. above, *Nguyen* does not teach or suggest the use of a particulate having a surface that comprises a porous or partially hollow geometry and a coating that is capable of trapping a fluid between the particulate's surface and the coating such that the density of the particulate is reduced, as recited in claims 1 and 41, as amended herein. Nor has the Examiner asserted that *Hoogteijling* teaches or suggests these elements. Claims 8, 10, 48 and 50 also include each of these limitations since they each depend, either directly or indirectly, from claims 1 or 41, and "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." See 35 U.S.C. § 112 ¶ 4 (2004). Therefore, since the combination of *Nguyen* and *Hoogteijling* does not teach these elements, claims 8, 10, 48, and 50 are patentable

over *Nguyen* in view of *Hoogteijling*. Accordingly, Applicants respectfully request the withdrawal of these rejections.

3. Rejections of Claims Under 35 U.S.C. § 103(a) Over *Nguyen* in View of *Murphey* and *Hoogteijling*

Claims 28 and 30 stand rejected under 35 U.S.C. § 103(a) as being as being unpatentable over *Nguyen* in view of *Murphey* and *Hoogteijling*. Applicants respectfully traverse.

In order for a combination of references to form the basis for a rejection under §103(a), the combination of references must teach or suggest all of the elements of the claim. MANUAL OF PATENT EXAMINING PROCEDURE § 2143 (2004). However, as discussed in Section III.B. above, *Nguyen* does not teach or suggest the use of a particulate having a surface that comprises a porous or partially hollow geometry and a coating that is capable of trapping a fluid between the particulate's surface and the coating such that the density of the particulate is reduced, as recited in claim 21, as amended herein. Nor has the Examiner asserted that *Murphey* or *Hoogteijling* teaches or suggests these elements. Claims 28 and 30 also include each of these limitations since they each depend, either directly or indirectly, from claim 21 and "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." See 35 U.S.C. § 112 ¶ 4 (2004). Therefore, since the combination of *Nguyen*, *Murphey* and *Hoogteijling* does not teach these elements, claims 28 and 30 are patentable over *Nguyen* in view of *Murphey* and *Hoogteijling*. Accordingly, Applicants respectfully request the withdrawal of these rejections.

4. Rejections of Claims Under 35 U.S.C. § 103(a) Over *Nguyen* in View of *Hoogteijling* and U.S. Patent No. 6,732,800

Claims 9, 11, 49, and 51 stand rejected under 35 U.S.C. § 103(a) as being as being unpatentable over *Nguyen* in view of *Hoogteijling* and further in view of U.S. Patent No. 6,732,800 to Acock, *et al.* ("*Acock*"). Applicants respectfully traverse.

In order for a combination of references to form the basis for a rejection under §103(a), the combination of references must teach or suggest all of the elements of the claim. MANUAL OF PATENT EXAMINING PROCEDURE § 2143 (2004). However, as discussed in Section III.A. above, *Nguyen* does not teach or suggest the use of a particulate having a surface that comprises a porous or partially hollow geometry and a coating that is capable of trapping a fluid between the particulate's surface and the coating such that the density of the particulate is

reduced, as recited in claims 1 and 41, as amended herein. Nor has the Examiner asserted that *Hoogteijling* or *Acock* teaches or suggests these elements. Claims 9, 11, 49, and 51 also include each of these limitations since they each depend, either directly or indirectly, from claims 1 or 41, and “a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.” See 35 U.S.C. § 112 ¶ 4 (2004). Therefore, since the combination of *Nguyen*, *Hoogteijling* and *Acock* does not teach these elements, claims 9, 11, 49, and 51 are patentable over *Nguyen* in view of *Hoogteijling* and *Acock*. Accordingly, Applicants respectfully request the withdrawal of these rejections.

5. Rejections of Claims Under 35 U.S.C. § 103(a) Over *Nguyen* in View of *Murphey*, *Hoogteijling*, and *Acock*

Claims 29 and 31 stand rejected under 35 U.S.C. § 103(a) as being as being unpatentable over *Nguyen* in view of *Murphey* and *Hoogteijling* and further in view of *Acock*. Applicants respectfully traverse.

In order for a combination of references to form the basis for a rejection under §103(a), the combination of references must teach or suggest all of the elements of the claim. MANUAL OF PATENT EXAMINING PROCEDURE § 2143 (2004). However, as discussed in Section III.A. above, *Nguyen* does not teach or suggest the use of a particulate having a surface that comprises a porous or partially hollow geometry and a coating that is capable of trapping a fluid between the particulate’s surface and the coating such that the density of the particulate is reduced, as recited in claim 21, as amended herein. Nor has the Examiner asserted that *Murphey*, *Hoogteijling* or *Acock* teaches or suggests these elements. Claims 29 and 31 also include each of these limitations since they each depend, either directly or indirectly, from claim 21, and “a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.” See 35 U.S.C. § 112 ¶ 4 (2004). Therefore, since the combination of *Nguyen*, *Murphey*, *Hoogteijling* and *Acock* does not teach these elements, claims 29 and 31 are patentable over *Nguyen* in view of *Murphey*, *Hoogteijling*, and *Acock*. Accordingly, Applicants respectfully request the withdrawal of these rejections.

6. Rejections of Claims Under 35 U.S.C. § 103(a) Over *Nguyen* in View of U.S. Patent No. 5,663,123

Claims 16-18, 20, 36-38, 40, 56-58, and 60 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nguyen* in view of U.S. Patent No. 5,663,123 to Goodhue, Jr. *et al.* (“*Goodhue*”). Applicants respectfully traverse.

In order for a combination of references to form the basis for a rejection under §103(a), the combination of references must teach or suggest all of the elements of the claim. MANUAL OF PATENT EXAMINING PROCEDURE § 2143 (2004). However, as discussed in Section III.A. above, *Nguyen* does not teach or suggest the use of a particulate having a surface that comprises a porous or partially hollow geometry and a coating that is capable of trapping a fluid between the particulate's surface and the coating such that the density of the particulate is reduced, as recited in claims 1, 21, and 41, as amended herein. Nor has the Examiner asserted that *Goodhue* teaches or suggests these elements. Claims 16-18, 20, 36-38, 40, 56-58, and 60 also include each of these limitations since they each depend, either directly or indirectly, from claims 1, 21 or 41, and "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." See 35 U.S.C. § 112 ¶ 4 (2004). Therefore, since the combination of *Nguyen* and *Goodhue* does not teach these elements, claims 16-18, 20, 36-38, 40, 56-58, and 60 are patentable over *Nguyen* in view of *Goodhue*. Accordingly, Applicants respectfully request the withdrawal of these rejections.

7. Rejections of Claims Under 35 U.S.C. § 103(a) Over *Nguyen* in View of *Goodhue* and U.S. Patent No. 4,387,769

Claims 19, 39, and 59 stand rejected under 35 U.S.C. § 103(a) as being as being unpatentable over *Nguyen* in view of *Goodhue* and further in view of U.S. Patent No. 4,387,769 to Erbstoesser, *et al.* ("*Erbstoesser*"). Applicants respectfully traverse.

In order for a combination of references to form the basis for a rejection under §103(a), the combination of references must teach or suggest all of the elements of the claim. MANUAL OF PATENT EXAMINING PROCEDURE § 2143 (2004). However, as discussed in Section III.A. above, *Nguyen* does not teach or suggest the use of a particulate having a surface that comprises a porous or partially hollow geometry and a coating that is capable of trapping a fluid between the particulate's surface and the coating such that the density of the particulate is reduced, as recited in claims 1, 21, and 41, as amended herein. Nor has the Examiner asserted that *Goodhue* or *Erbstoesser* teaches or suggests these elements. Claims 19, 39, and 59 also include each of these limitations since they each depend, either directly or indirectly, from claims 1, 21 or 41, and "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." See 35 U.S.C. § 112 ¶ 4 (2004). Therefore, since the combination of *Nguyen*, *Goodhue* and *Erbstoesser* does not teach these elements, claims 19, 39,

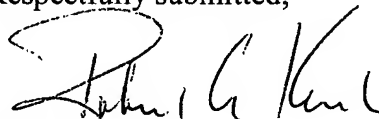
and 59 are patentable over *Nguyen* in view of *Goodhue* and *Erbstoesser*. Accordingly, Applicants respectfully request the withdrawal of these rejections.

SUMMARY

In light of the above remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections. Applicants further submit that the application is now in condition for allowance, and earnestly solicit timely notice of the same. Because this response has been filed within two months of when the Final Office Action was issued, Applicants respectfully request that the Examiner issue an advisory action if the Examiner does not find the claims to be allowable in light of the amendments and remarks made herein. Should the Examiner have any questions, comments or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the attorney of record by telephone, facsimile, or electronic mail.

Applicants believe that there are no fees due in association with this filing of this Response. However, should the Commissioner deem that any fees are due, including any fees for extensions of time, Applicants respectfully request that the Commissioner accept this as a petition therefor, and direct that any additional fees be charged to the Deposit Account of Halliburton Energy Services, Inc., No. 08-0300.

Respectfully submitted,



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